

THE EFFECT OF COLLEGIATE HEAD COACH'S GENDER ON FEMALE ATHLETE  
OUTCOMES

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A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Exercise and Sport Science (Sport Administration).

Chapel Hill  
2018

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## ABSTRACT

Simon Carcagno: The Effect of Collegiate Head Coach's Gender on Female Athlete Outcomes  
(Under the direction of Barbara Osborne)

Previous research into the effect of collegiate head coach's gender focused on measuring the coach's ability to enhance athletic performance, this study extends that research by examining the coach's educational and mentoring impact on athletes. We examined whether head coaching gender was associated with higher salaries, SWLS Satisfaction With Life Scores, UWES-9 Work Engagement Scores, JSS-18 Job Satisfaction Scores, and included an open-ended question exploring the impact of the head coach on the respondent's career. Respondents scored highly in all measures, but these results were not associated with the coach's gender. Analysis of the open-ended question for level of impact revealed that male and female coaches were equally likely to positively impact athlete's careers, while male head coaches were significantly more likely to have a moderate positive impact. Analysis of the type of impact revealed that athletes with female head coaches were significantly more likely to report increased self-efficacy.

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## **CHAPTER 1**

### **INTRODUCTION**

Title IX has created incredible opportunities for women and girls to participate in sport. Along with that growth has come a significant increase in the numbers of coaching positions for women's teams. In 1972 when Title IX passed, 90% of women's teams were coached by women. Just two years later, in 1974, only 50% of women's teams were coached by women. That ratio has continued to decline, by 2016 only 43% of women's teams were coached by women. As Title IX created a large number of coaching positions, most of those jobs have gone to men who coach 98% of men's collegiate teams and 57% of women's collegiate teams (Acosta & Carpenter, 2014). This has tremendous implications both for female student athletes and women interested in a career in coaching.

The coach-athlete relationship is one of the most important relationships in a young athlete's life. Coaches are mentors, role models, and authority figures. Unfortunately, many female athletes may go through their athletic careers without having a female head coach to mentor them and model effective female leadership. This can reduce the desirability of coaching as a career, as female athletes with a female head coach are more likely to look favorably on a career in coaching (Everhart & Chelladurai, 1998; Knoppers, 1985).

Previous research has identified significant barriers to entry and advancement for women in coaching. Homologous reproduction, or the tendency of those in power to advance similar people has been shown to occur in athletics. With so few female head coaches and women in

senior leadership positions within athletic departments, hiring is often controlled by men who hire male coaches at higher rates( Darvin & Sagas, 2017; Lovett & Lowrey, 1994; Sagas, Cunningham & Teed, 2006; Stahura & Greenwood 2001; Stangel & Kane, 1991).

Coaching is associated with masculine traits such as aggression, competitiveness, and dominance. Female coaches are expected to embody these traits, but not too much. Coaches who are not aggressive or competitive are labeled as weak, while those who push too hard are fired. This balancing act can be exhausting and has been identified as a barrier to retention (Inglis, Danylchuk & Pastore, 2000).

Another barrier to entry and advancement are the time demands associated with athletics. The time demands of collegiate coaching are often extreme. Practices are often scheduled at the beginning and end of the day, meaning many coaches are required to work early mornings and late evenings. Double sessions are common, leading to 12-14 hour days. Recruiting takes significant, and ever increasing, time and attention, requiring travel as well as hosting prospective student-athletes. Finally, competitions require travel and giving up entire weekends. These time demands also create a perceived incompatibility of coaching with having a family and a healthy work life balance. Childcare is a challenge for most families, but is particularly challenging when working nonstandard hours (Kamphoff, 2010).

Overcoming these barriers has proved challenging. The question of why there are so few female head coaches has been extensively studied, but more basic questions have gotten little attention. Only two studies have looked at whether male coaches outperform female coaches. These studies showed that in softball and basketball, there was no significant difference between the performance of male and female coaches (Von Allen, 2013; Darvin Pegoraro, & Berri , 2017).



While there does not appear to be differences in the performance of male and female coaches, are there other benefits to having a female head coach? It is often assumed that female athletes benefit from the mentorship and leadership modeling a female coach can provide. In their 2018 study, Weight, Bonfiglio, DeFreese, Kerr, & Osborne demonstrated benefits in life satisfaction, career engagement, community engagement, and in demographic factors such as income associated with participation in collegiate athletics. This study examines those factors to determine whether former female student-athletes are affected by the gender of their collegiate head coach.

### **Research Questions**

This study is guided by the following research questions:

RQ1 Are there any differences in income and propensity to donate to the athletic program between female former student athletes that had female head coaches and those that had male head coaches?

RQ2 Is life satisfaction affected by the gender of a female former student athlete's head coach?

RQ3 Is career satisfaction affected by the gender of a female former student athlete's head coach?

RQ4 Is career engagement affected by the gender of a female former student athlete's head coach?

RQ5 Are there differences in the way former female athletes describe the impact their head coach had on their career between women who had female head coaches and those who had male head coaches?

## **Significance of the study**

The underrepresentation of women in coaching is a significant challenge for athletic departments to overcome. Studies showing that men and women are equally effective as coaches are an important indicator that the underrepresentation is, in fact, discriminatory. Knowing that men and women are equally effective as coaches may not be in and of itself enough for athletic departments to begin to change their hiring practices and hire more women. If men and women are equally effective as coaches, departments will hire the best candidate. Given the greater proportion of men in coaching, experienced candidates with track records of successful head coaching are more likely to be men. If the life satisfaction, career satisfaction, and career engagement of former female student athletes who had female head coaches is significantly better than those who had male coaches, the evaluation criteria for what constitutes a good candidate changes. Simply put, for the underrepresentation of women in coaching to improve, women have to be perceived as more than simply equal candidates, they need to be superior candidates.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

#### **Introduction and historical trends**

Title IX of the Educational Amendments of 1972 was signed by President Nixon on June 23, 1972. It consists of only 37 words, but has had a huge impact on athletics in the United States. The law states simply: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance” (Title IX, 1972). With the signing of Title IX came a significant increase in opportunities for women and girls to participate in collegiate and scholastic athletics. With more athletes participating came the need for more coaches. In 1972 when Title IX passed, 90% of women’s collegiate teams were coached by women, many as volunteers. As colleges and universities worked to increase participation opportunities for women, the demand for coaches outstripped the supply of qualified female candidates resulting in the hiring of significant numbers of men as coaches of women’s teams (Welch & Sigelman, 2007). By 1974, two years after the passage of Title IX, only 50% of women’s teams were coached by women.

As time has gone by, the proportion of female head coaches has continued to decline to its current level of 43%. Women are also not coaching men in any significant numbers as only 2% of men’s collegiate teams have female coaches (Acosta & Carpenter, 2014). While the initial drop in proportion might be explained by supply and demand, it is puzzling that as time has passed the proportion of female coaches has continued to decline. One could reasonably expect that as more women participate in athletics, more women would subsequently be interested in

coaching. This phenomenon is even more puzzling as the proportion of women in other traditionally male dominated fields has been steadily increasing since the 1970s.

Much research has been done into the reasons for the decline of women in coaching. Researchers examining this question have tended to fall into two camps. Some have looked to the institutional structure of collegiate athletics to explain why the proportion of women in coaching has declined since the passage of Title IX, while others have looked at the psychological factors confronting individual female coaches to explain why individuals are choosing not to coach or to leave coaching.

### **Structural factors**

Many researchers have looked to Kanter's (1977) theory of homologous reproduction to explain the continuing decline in the proportion of female head coaches. Kanter (1977) defines homologous reproduction as the process by which those in power perpetuate themselves in their own image. This theory applied to collegiate athletics would posit that male administrators would be more likely to hire male coaches and administrators, thereby perpetuating the power of their group. This theory is especially interesting when looking at the historical trends affecting the governance of women's athletics after Title IX was passed that resulted in female athletics programs being subsumed into men's athletics departments and controlled by male administrators.

The first national collegiate championship in women's sports was held in 1941 in the sport of golf. It was organized by the Division for Girls' and Women's Sports (DGWS) of the American Association for Health, Physical Education and Recreation. Throughout the 1950s and 1960s many colleges started women's intercollegiate athletic teams that competed regionally and

were administered by a women's athletic department separate and distinct from the men's athletic department. In 1956, the Tripartite Committee was formed by representatives from the National Association for Physical Education for College Women, the National Association for Girls' and Women's Sport and the American Federation of College Women to discuss issues facing women's intercollegiate athletics. The National Joint Committee of Extramural Sports for College Women was formed on the basis of a recommendation of the Tripartite Committee to administer women's intercollegiate sport. This model proved unwieldy and in 1965 governance was consolidated under the Division of Girls' and Women's Sports (DGWS). In 1966, the DGWS formed the Commission of Intercollegiate Athletics for Women (CIAW) to govern women's intercollegiate athletics and conduct national championships. In 1971 the Association for Intercollegiate Athletics for Women (AIAW) was created from the CIAW as a membership organization with elected representation (Wushanley, 2004; Grundy and Shackelford, 2005).

Philosophically the AIAW reflected its roots in physical education, emphasizing the educational benefits of participation and maximizing participants' potential in sport (Inglis, 1988). Initially, neither scholarships nor off-campus recruiting were permitted. The model was explicitly different than the more commercial National Collegiate Athletic Association (NCAA) model, which at the time had no interest in women's sports. The required influx of money and resources into women's sports with the passage of Title IX started to change the sport governance landscape. Women's collegiate sports demonstrated that they could be profitable; the 1973 AIAW basketball tournament earned a profit of \$4,500 and over 3,000 spectators watched the final between Queens College and Immaculata College. Just two years later, 12,000 fans watched these teams play at Madison Square Garden (Lannin, 2000).

With women's sports becoming increasingly popular, the NCAA took notice. Beginning in 1975 several attempts by the NCAA to merge with the AIAW were rebuffed. The AIAW was convinced that women's athletics needed to stay under the control of women and fought hard to maintain control. Things came to a head at the 1980 NCAA convention where the NCAA voted to establish five DII and DIII championships to begin in 1981 and develop a governance plan for women's sports. The AIAW lobbied university presidents aggressively in advance of the 1981 NCAA Convention and several proposals to delay or rescind the NCAA women's championships were presented. At the convention, the AIAW representatives objected to the creation of women's championships but were shouted down and not allowed to speak. The governance plan for women's sports was passed, the DII and DIII championships were affirmed, and after lengthy debate the all-male membership voted to establish women's championships in DI in nine sports (Grundy and Shackelford, 2005; Wushanley, 2004). NCAA member institutions could include their women's teams without paying additional dues to the Association. NCAA member schools with women's programs in the AIAW began to defect from the AIAW and consolidate their programs within the NCAA until the AIAW could no longer sustain championships or itself (Acosta & Carpenter, 1985).

As the NCAA took over the AIAW, responsibility for women's athletics at the institutional level was also taken from the female physical educators and brought into the men's athletic department. While some institutions maintained a separate women's athletic department for a time, the need to create efficiencies by combining positions eventually won out. As the departments consolidated, only a small number of female administrators were retained (Inglis, 1988). The elimination of the AIAW and women's athletic departments resulted in men being firmly entrenched in the leadership positions of athletic departments.

Homologous reproduction suggests that the decline in the proportion of female coaches is a result of the concentration of power in the hands of male administrators (Kanter, 1977). It should not be surprising that Acosta and Carpenter (1985, 1988) in a study of 400 administrators found that the female administrators top perceived reason for the declining proportion of female head coaches was the success of the 'old boys club', while the third most common response was the lack of an 'old girls club'. This contrasted with the male administrators who cited 'lack of qualified female coaches' and 'failure of females to apply to job openings' as their top reasons (Acosta & Carpenter, 1988).

Two studies conducted in the 90's found that at the high school level, the gender of the athletic director was predictive of the proportion of female coaches at a given school. These studies identified the presence of homologous reproduction in the hiring practices of both genders. In 1991 Stangl and Kane, then Lovett and Lowrey in 1994, found there were significantly more female coaches employed at schools with female athletic directors. Stahura and Greenwood (2001) found evidence of homologous reproduction at the collegiate level showing that the gender of the athletic director affected the numbers of women hired into the department.

Sagas, Cunningham and Teed (2006) looked at homologous reproduction in the hiring of assistant coaches by head coaches in women's basketball, women's soccer, women's volleyball and soccer. They examined the gender distribution of assistant coaches as a function of the head coach's gender across all three NCAA divisions. Homologous reproduction was occurring, with female head coaches being more likely to hire female assistants. The effect was stronger for female head coaches than for male head coaches. Darwin and Sagas (2017) updated the study after 10 years and found similar results. Homologous reproduction was still seen in three of the

four sports as female head coaches hired female assistants more frequently than male head coaches. Darvin and Sagas (2017) also noted that the rate at which male head coaches hired male assistants was lower in the updated study, indicating that homologous reproduction was decreasing among male head coaches.

Knoppers (1987), building on Kanter (1977), identified three structural determinants of the workplace: opportunity, power, and proportion. These structural determinants affected job satisfaction and addressed causes for women leaving coaching sooner than men. The observation that the structural determinants reduced the amount of time women stayed in coaching supports Hart's (1986) finding that the faster rate of turnover and shorter careers of female coaches reduces the proportion of female coaches over the long term.

Kamphoff (2010) conducted a study of 121 female former coaches to determine why they left the profession. Gender discrimination, centrality of male coaches, and homophobia, as well as perceived conflict between coaching and motherhood were all identified as factors leading women to leave coaching. This research suggests structural explanations are insufficient to understand the whole picture; individual psychological explanations are also at play.

### **Psychological factors**

Some researchers have looked to internal psychological explanations instead of external structural ones to explain the lack of women in collegiate coaching. Is there something about the profession of coaching that makes it less appealing to women? A significant amount of research has focused on these internal psychological explanations, and for good reason: women leave coaching at a younger age than men (Knoppers, Bedker Meyer, Ewing, & Forest, 1991; Sagas, Cunningham, & Ashley, 2000) and report higher perceived levels of satisfaction from activities



other than coaching (Weiss and Stevens, 1993). Research on assistant coaches has indicated that female assistant coaches are less interested in becoming head coaches than male assistant coaches and have a higher intention of changing careers (Cunningham, Doherty, and Gregg, 2007; Cunningham, Sagas, and Ashley (2003). A number of theoretical models including self-efficacy theory, sex role socialization theory, social cognitive career theory, identity theory, social exchange theory, human capital theory and the theory of planned behavior have all been used in research seeking to explain the lack of women in coaching.

Sex role socialization theory posits that gender-appropriate behaviors in learned childhood and adolescence are internalized and inform the behavior of adults (Knoppers, 1992). Girls and young women who are coached by men at the youth, scholastic, and collegiate level may internalize the view that coaching is not an appropriate career choice for women (Knoppers, 1992). Indeed, female student athletes who have had female head coaches are more likely to have a positive view of coaching as a career and are less concerned with perceived discrimination than student athletes with a male coach (Everhart & Chelladurai, 1998).

Sex role socialization has also been used to analyze whether women and girls prefer male coaches. Older studies have found that both men and women prefer male coaches. Parkhouse and Williams (1986) studied the attitude of male and female basketball players towards male and female coaches. The researchers created statements of coaching philosophy and assigned them to male or female coaches. The basketball players were then asked to evaluate the coaches. Both the male and female athletes in the study rated the male coaches above the female coaches, even after the researchers described the female coaches as having better competitive records than the male coaches. A survey conducted by LeDrew and Zimmerman in 1994 found similar results among Canadian volleyball players. Habif, Van Raalte, and Cornelius (2001) looked at male and

female volleyball and basketball athlete's attitudes towards male and female coaches and found that while both male and female basketball players preferred male coaches, the preference observed was smaller than in the 1994 study. Volleyball players had no significant preference for the gender of their coach. It seems likely that the preference for a coach's gender is evolving over time, and that athletes in each sport may have a different set of cultural expectations and norms when it comes to the preferred gender of their coach.

Sagas, Cunningham, and Ashley (2000) were the first to examine the deficit of female head coaches through the lens of assistant coaches' experiences. Working as a collegiate assistant coach is the most common first step on the career path towards becoming a collegiate head coach. Assistant coaches also make up the readiest supply of new head coaches, and women make up the majority of assistant coaches of women's teams (Acosta & Carpenter, 2014). Sagas et al. (2000) found that while female assistant coaches perceived they had more opportunity and an advantage over their male counterparts in seeking a head coaching position, they pursued head coaching opportunities at a significantly lower rate.

These results have been supported by subsequent studies of assistant coaches. Cunningham, Sagas, and Ashley (2003) employed the framework of Bandura's (1986) social cognitive theory in a survey of 173 NCAA Division 1 assistant coaches of women's teams across a range of sports. Social cognitive theory links self-efficacy, or the confidence in one's ability to perform a task, with behavioral change. In their study, Cunningham et al. (2003) examined coaching self-efficacy, head coaching intention, and occupational turnover. They found that the female assistant coaches were less likely to desire to become a head coach, had significantly lower coaching self-efficacy, and higher intention to change career than their male counterparts.

This mechanism supports Hart's (1986) observation that faster turnover and shorter careers result in fewer female coaches over the long term.

While many studies have focused on structural impediments to women in coaching and psychological factors affecting the choices of individuals to pursue and continue a career in coaching, only two studies have tried to quantitatively confirm or reject the premise that men are more effective coaches than women. If men are better coaches than women, then the current gender distribution of coaches is rational. Should research reveal that men are not more effective coaches of women and girls, then it becomes possible to confront and overcome the gendered stereotypes that have concentrated men into head coaching jobs and women into assistant coaching jobs.

A strict look at wins and losses is unlikely to provide an accurate measure of coaching effectiveness. The ability of a coach to win at the collegiate level is closely related to the level of support that a program receives. If women are concentrated in less desirable, less supported head coaching jobs, the win-loss record will be skewed to favor the male coaches. Von Allen (2013) controlled for these factors in a study of NCAA D1 softball programs to see whether female coaches were as successful as men. The study utilized a multiple regression using the RPI (rating percentage index), a ranking based on team performance and strength of schedule which is published by the NCAA as the dependent variable. Von Allen controlled for program reputation, program expenditure, and gender. While program reputation and expenditure were significant in explaining the variance in RPI, gender was not. Women and men were equally effective at producing wins within the constraints of their programs.

Instead of looking at RPI, which doesn't differentiate coaching ability from recruiting ability, Darwin, Pegoraro, and Berri (2017) measured the impact of a coach's gender on

individual player performance over time. They tracked the average improvement in player's statistics of 1,522 athletes over 19 seasons in the WNBA and 4,000 athletes over three seasons of NCAA basketball. They found that the gender of the coach did not impact the development of athletes; both men and women had similar levels of success in improving players on-court performance.

The quantitative data that exists shows the gender of the coach does not impact effectiveness. Good coaches are good coaches regardless of gender. Given the strength of the stereotypes around female leadership, are there any measurable advantages that female coaches provide to female athletes? Everhart and Chelladurai (1998) found that women who had female coaches were more likely to consider a career in coaching. Research into mentoring relationships has shown that women with female mentors believed having a female mentor was important and had an impact on the effectiveness of the relationship (Dunbar & Kinnersley, 2011; Lowe, 2003; Wolverton, 2002). Given the role modeling and mentoring that a female coach can provide, an examination of former female student athletes controlling for the gender of their collegiate coach could illuminate differences between the effectiveness of male and female coaches as educators and mentors.

## **Theoretical Framework**

Bandura's (1986) social cognitive theory provides a framework understanding the potential long-term benefits of a female coach to female athletes. Social cognitive theory holds that people learn through observing others modeling of behaviors and attitudes as well as the outcomes of those behaviors and attitudes (Bandura, 1977). Furthermore, the ability to reproduce a behavior is mediated by the bidirectional interaction of personal, behavioral, and environmental

determinants (Bandura, 2001). Bandura (1986) holds that one of the most critical personal determinants is the level of self-efficacy an individual has towards the modeled behavior.

Self-efficacy or the belief in one's ability to perform an action, is improved by close identification by the subject with the model (Bandura, 1988; Schunk, 1987).

“The impact of modeling on beliefs of personal efficacy is strongly influenced by perceived similarity to the models. The greater the assumed similarity the more persuasive are the models' successes and failures. If people see the models as very different from themselves their beliefs of personal efficacy are not much influenced by the models' behavior and the results it produces” (Bandura, 1995, p. 3-4).

Female coaches, by virtue of their gender, are more similar to female athletes than male coaches. A female coach modeling effective female leadership is therefore likely more effective at imparting leadership skills to female athletes. This effect could be measurable in the life and career outcomes of female athletes.

## **Life Satisfaction**

Life satisfaction is defined as “a global assessment of a person's quality of life according to his chosen criteria” (Shin and Johnson, 1978 p. 478). Diener, Emmons, Larsen, and Griffin (1985) developed the Satisfaction With Life Scale (SWLS) to provide a measure of life satisfaction by asking subjects for an overall judgement of their life. The SWLS consists of five statements that respondents evaluate and self-report their level of agreement on a seven-point Likert scale. The SWLS does not provide guidance on what to consider when responding; instead respondents employ their own subjective frame of reference and to complete the survey. This subjective frame of reference has been shown to be consistent over time. Schimack, Dieber

and Oishi (2002) conducted a study of N=122 college students. The students took the SWLS four times over the course of a semester and were then asked to identify the sources they used to evaluate their life satisfaction. The sources used were consistent and strongly correlated on each retest (Schimmack, Diener, Oishi, 2002). The SWLS is not very sensitive to contextual circumstances like mood and recent events. Eid and Deiner (2004) conducted a study of N=249 subjects with three retests that showed satisfaction with life had significantly less variability than momentary mood and showed only a small association between momentary mood ratings and satisfaction with life (Eid and Deiner 2004). The consistency, reliability and temporal stability of the SWLS makes it a good measure for assessing the wellbeing of former female student athletes.

### **Job Satisfaction**

Job satisfaction is a measure of subjective career success that has been a focus of occupational research in recent years. Much of the research into job satisfaction finds its roots in Edwin A. Locke's Range of Affect Theory (1976) which holds that job satisfaction is determined by the difference between what a person wants from a job and what an employer provides. This can be conceptualized as a global feeling and attitude about one's job or as an array of feelings and attitudes about the various facets of one's job. Paul Spector (1985) used the facet approach to develop the Job Satisfaction Survey (JSS) as means to provide a comprehensive view of a subject's job satisfaction. Using the instrument on a sample of N=2870 individuals, the internal consistency reliability was computed for the entire scale to be .91 while a test-retest reliability estimate was conducted 18 months apart on a small sample of N=43. The correlation coefficient between both points in time was .71 for the entire scale, indicating a strong temporal reliability for the measure (Spector, 1985).

## Career Engagement

Career engagement is another indicator of occupational well-being defined as “a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002, p. 74). This definition was used by Schaufeli and Bakker (2003) to create the Utrecht Work Engagement Scale to measure vigor, dedication, and absorption in ones’ work. Work engagement is correlated to positive organizational outcomes including financial returns (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), service quality and customer loyalty (Salanova, Agut, & Piero, 2005), in -role performance (Schaufeli, Taris, & Bakker, 2006), and academic performance (Schaufeli, Martinez, Marques Pinto, Salanova, & Bakker, 2002). While life and career satisfaction provide subjective measures of success, career engagement’s correlation with organizational outcomes allows generalized conclusions to be drawn about respondents’ value to their employer.

Understanding the causes and processes underlying the lack of female head coaches in collegiate athletics is a critical starting point for any examination of the role of gender in coaching. The review of previous literature indicates that both structural and individual psychological factors contribute to the lack of female head coaches and the additional pressures and scrutiny that female head coaches face. Despite these challenges, research into the effectiveness of male and female coaches has shown that both sexes are equally effective at producing wins and developing athletes. While wins and losses are the primary outputs of a head coach, collegiate athletics has an educational mission. Examining the well-being, job satisfaction, and career engagement of former female student athletes allows us to assess whether the gender of the athlete’s head coach has a meaningful impact on the life outcomes of their athletes.

## **CHAPTER 3**

### **METHODOLOGY**

#### **Participants**

A sample of former varsity female student athletes who graduated from D1, D2, and D3 institutions was used for this study. Participants were solicited using snowball sampling through social media, mailing lists for women's sports organizations, and distribution through alumni groups. A total of 262 subjects completed the survey. The sample consisted of 124 subjects who had male head coaches and 138 subjects who had female head coaches.

#### **Procedure**

The data was collected through an online survey emailed to former female student athletes. Participants were emailed an explanation of the study and a link to the online questionnaire. The study was described simply as looking into the life satisfaction, job satisfaction, and career engagement of former female student athletes to avoid biasing the responses. The questionnaire asked for demographic information including age, ethnicity, collegiate sport, employment status, industry, income, and information about their collegiate head coach. Participants were also asked to respond to questions designed to measure life satisfaction, career satisfaction, and career engagement. Finally, the survey asked an open-ended question to identify the impact that the respondents collegiate head coach had on their career.



Life satisfaction was measured using Satisfaction with Life Scale instrument consisting of five items evaluated on a seven-point Likert Scale (Diener, Emmons, Larsen, & Griffin, 1985). For example, respondent is to indicate on a seven-point scale whether they agree with the statement “I am satisfied with my life” with 1 being strongly disagree and 7 being strongly agree.

Job satisfaction was assessed using a condensed version of the Job Satisfaction Survey (JSS) consisting of eighteen items evaluated on a six-point Likert Scale (Spector, 1994). Respondents were asked to describe whether they agree with a series of statements about their job, such as “When I do a good job, I receive the recognition for it that I should receive,” with 1 being disagree very much and 6 being agree very much.

Career engagement was measured using the condensed nine question version of the Utrecht Work Engagement Scale, the UWES-9 (Schaufeli, Bakker, & Salanova, 2006). The UWES-9 asks respondents how often they experience certain emotions at work such as “I feel happy when working intensely.” The responses on the seven-point Likert scale range from never to everyday.

## **Data Analysis**

The quantitative survey data was collected through Qualtrics Survey Software and then entered into Statistics Package for Social Sciences (V. 25) software for analysis. Descriptive statistics and a series of independent samples t tests were run to analyze the dependent variables of salary, likelihood to donate, life satisfaction, job satisfaction and career engagement using the independent variable of head coach gender.

The responses to the open-ended question were coded and grouped into themes to explore the level and type of impact that the gender of the collegiate head coach had on the former

student athlete's career. The coded data was then entered Statistics Package for Social Sciences (V. 25) for analysis. Chi square tests were calculated to see if the coded responses were significantly different based on the head coaches' gender. Bonferroni post hoc testing was performed on the adjusted residuals to identify which types and levels of impact significantly different based on head coaches' gender.

## CHAPTER 4

### RESULTS

#### Demographics

Of the 451 responses to the survey, 262 were from former female student athletes. The mean age for respondents was 34, 94% (n=247) were Caucasian, and 50.4% (n=135) had either a masters, doctoral, or professional (JD, MD) degree. Seventy-one percent (n=184) were employed full time. Of those employed full time, the mean salary was \$95,052. Full demographic data can be found in Table 1.

**Table 1**  
*Demographic information of respondents*

	%	<i>n</i>
<b>Age</b>		
20-29	42%	110
30-39	34%	86
40-49	17%	43
50+	6%	14
<b>Ethnicity</b>		
Caucasian	94%	247
African American	2%	4
Hispanic	0%	1
Asian	2%	6
Other	2%	4
<b>Level of Education</b>		
4 Year College Degree	50%	132
Masters Degree	34%	88
Doctoral Degree	7%	17
Professional Degree (JD, MD)	9%	30
2 Year College Degree	0%	1
<b>Employment Status</b>		

Employed full-time	71%	184
Employed part-time	9%	24
Work in the home	6%	15
Retired	2%	4
Unemployed	2%	4
Other	12%	30
<b>Income</b>		
\$0 - \$29,999	5%	9
\$30,000 - \$59,999	37%	66
\$60,000 - \$99,999	27%	48
\$100,000 - \$149,000	15%	27
\$150,000 - \$200,000	6%	10
\$200,000 - \$300,000	7%	13
300000+	3%	6

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Note: Mean age is 34

### Participation in collegiate athletics

Forty-seven percent (n=124) reported having a male head coach in college, while 53% (n=138) had a female head coach. Forty-seven percent (n=124) of respondents were on collegiate rowing teams, 12% (n=30) were former collegiate field hockey players, and 10% (n=27) were former collegiate swimmers. 83% (n=216) competed at the NCAA DI level. 54% (n=140) reported having donated to their collegiate athletic department. The information on respondents' collegiate athletic participation can be found in Table 2.

**Table 2**  
*Athletic information of respondents*

	%	<i>n</i>
<b>Sport</b>		
Basketball	2%	6
Cross Country	2%	4
Field Hockey	12%	30
Golf	0%	1
Gymnastics	0%	1
Ice Hockey	1%	2

Lacrosse	1%	3
Rifle	0%	1
Rowing	47%	124
Rugby	2%	6
Soccer	8%	20
Softball	5%	14
Swimming	10%	27
Tennis	2%	6
Track and Field	3%	8
Volleyball	2%	6
Other	1%	3
<b>Head Coaches Gender</b>		
Male	47%	124
Female	53%	138
<b>Donated to Athletic Department</b>		
Yes	54%	140
No	46%	120
<b>Level of Competition</b>		
NCAA DI	83%	216
NCAA DII	3%	8
NCAA DIII	13%	33
NAIA	1%	2
Junior College	0%	0

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#### Quantitative results RQ1-4

While the mean salary of former female athletes with female head coaches was slightly higher than for those with male head coaches, independent samples t testing did not reveal a significant difference  $t(177) = -.256, p=.8$  between those who had male head coaches ( $M=\$93,551$   $SD=\$74,052$ ) and those who had female head coaches ( $M=\$96,556$   $SD=\$82,534$ ). Women who had male head coaches were no more likely  $t(254.57) = -.823, p=.411$  than those who had female head coaches to donate to their athletic department.

Women who had male head coaches did not have significantly different scores than those who had female head coaches on the Satisfaction With Life Scale  $t(228.8) = -1.754, p=.081$ ,

Utrecht Work Engagement Scale  $t(155.98) = -.453, p=.651$ , or the Job Satisfaction Scale  $t(158.76) = 1.212, p=.227$ . Of these, the independent samples t testing did approach significance  $p=.081$  for the Satisfaction With Life Scale.

**Table 3**  
*Impact of Head Coach Gender*

	Male Head Coach		Female Head Coach		Mean Difference	<i>t</i>	<i>p</i>
	Mean 1	<i>SD 1</i>	Mean2	<i>SD2</i>			
Annual Salary	\$93,551	\$74,052	\$96,556	\$82,435	\$3,005	-0.256	0.8
Donated to Athletic Department	1.43	0.5	1.49	0.5	-0.05	-0.823	0.411
SWLS Satisfaction With Life Scale	28.08	5.25	29.14	4.25	-1.06	-1.754	0.081
UWES-9 Work Engagement Score	5.81	1.19	5.89	0.97	-0.08	-0.453	0.651
JSS-18 Job Satisfaction Scale	74.27	14.36	76.83	13.25	-2.56	-1.212	0.227

*Note:* Salary is for FTEs

### Qualitative results RQ5

Included in this survey was an open-ended question asking what effect the head coach had on the respondents' career. 230 individuals responded with answers ranging from one word to several sentences. 111 had male head coaches and 119 had female head coaches. These responses were coded and organized into themes and analyzed for both level and type of impact. The coding was done by two researchers with an overall level of agreement of 94%.

Level of impact was coded using a Likert scale with 1 being a large negative impact, 2 moderate negative impact, 3 no impact, 4 moderate positive impact, and 5 being a large positive impact. The impact of the head coach was very positive with 59% of women who had a female head coach and 64% of women who had a male head coaches reporting either a moderate or

large positive impact on their career. Only 11% (n=13) of individuals with female head coaches and 8% (n=9) of individuals with male head coaches reported either a moderate or large negative impact. 51% (n=61) of respondents with female head coaches reported a large positive impact, while only 8% (n=9) reported a moderate positive impact. 41% (n=46) of respondents with male head coaches reported a large positive impact and 23% (n=25) reported a moderate positive impact on their career. These results are reported in Table 4.

**Table 4**

*Level of impact of collegiate head coach on respondents' career*

<i>Female Head Coach</i>	<i>n</i>	<i>%</i>	<i>Male Head Coach</i>	<i>n</i>	<i>%</i>
Large Negative	7	6%	Large Negative	6	5%
Moderate Negative	6	5%	Moderate Negative	3	3%
No Impact	36	30%	No Impact	31	28%
Moderate Positive	9	8%	Moderate Positive	25	23%
Large Positive	61	51%	Large Positive	46	41%
<i>n = 119</i>			<i>n = 111</i>		

A chi-square test was performed and the relationship between head coaches gender and level of impact was significant,  $\chi^2(4, N = 230) = 10.82, p = .03$ . Bonferroni post hoc testing was performed on the adjusted residuals to determine which levels of impact differed significantly. A significant difference was found in the Moderate Positive impact associated with the gender of the head coach. Male head coaches were significantly more likely to have a Moderate Positive impact when compared with female head coaches.

The type of impact was assessed by dividing responses into eight themes which can be found in Table 5. There were seven themes identified in the responses, four positive and three negative. The positive themes identified were “Inspiration”, “Mentor”, “Positive Lesson” and “Increased Self Efficacy”. Three negative themes were identified were “Decreased Self Efficacy”, “Cautionary Lesson”, and “Limited Aspiration or Opportunity”. Finally, a number of

responses were categorized as “Undefined or None”. This category included responses of “None,” or “No impact” where neither level or type of impact was identifiable, and also responses like “Huge” or “Great” which had an identifiable level of impact, but type of impact could not be ascertained.

The most common theme identified for respondents with female head coaches was Inspiration with 19% (n=23) of responses falling into that category. The most common theme for respondents with male head coaches was Positive Life Lesson with 24% (n=25) of responses identifying a positive lesson that impacted their career. Of the negative themes identified, responses for female head coaches were most likely to be Limited Aspiration or Opportunity at 4% (n=5) or Cautionary Lesson 3% (n=3) while no responses were coded as Decreased Self Efficacy. For the respondents with male head coaches, 7% (n=7) of responses reported the theme of Decreased Self Efficacy, 4% (n=4) were Cautionary Lesson and 2% (n=2) were Limited Aspiration or Opportunity.

**Table 5**

*Type of impact of collegiate head coach on respondents' career*

<i>Female Head Coach</i>	<i>n</i>	<i>%</i>	<i>Male Head Coach</i>	<i>n</i>	<i>%</i>
Inspiration	23	19%	Inspiration	7	7%
Mentor	19	16%	Mentor	22	21%
Positive Lesson	12	10%	Positive Lesson	25	25%
Increased Self Efficacy	18	15%	Increased Self Efficacy	3	3%
Decreased Self Efficacy	0	0%	Decreased Self Efficacy	7	7%
Cautionary Lesson	3	3%	Cautionary Lesson	4	4%
Limited Aspiration or Opportunity	5	4%	Limited Aspiration or Opportunity	2	2%
Undefined or None	39	33%	Undefined or None	41	39%
<i>n = 119</i>			<i>n = 111</i>		

A chi-square test was performed and an association was found between head coaches' gender and the type of impact,  $\chi^2 (7, N = 230) = 32., p < .001$ . Bonferroni post hoc testing was performed



on the adjusted residuals to identify which type of impacts differed significantly and Increased Self-Efficacy was significantly different based on head coach gender. Former female student athletes with female head coaches were significantly more likely to report increased self-efficacy impact when compared athletes that had male head coaches.

## **CHAPTER 5**

### **DISCUSSION**

The findings of this research support the findings of previous research into the impact of gender on the effectiveness of head coaches. Previous research found that the gender of the head coach had no impact on the ability of the head coach to produce wins and develop the athletic abilities of their athletes (Darvin, Pegoraro, & Berri 2017; Von Allen 2013). This research also indicates the gender of the head coach does not impact the life outcomes of their athletes; both men and women are equally effective at improving the life satisfaction, work engagement and job satisfaction of their athletes. That is not to say that there are not measurable differences between male and female coaches. The qualitative data points to several areas in which the gender of the head coach has a significantly different level of impact on a former athlete's professional career.

#### **Quantitative Analysis**

The quantitative analysis did not show any statistically significant difference in income, life satisfaction, career engagement, and job satisfaction of female athletes based on the gender of their collegiate head coach. The results for the Satisfaction With Life Scale did approach significance at  $p=.081$ . It was notable how well participants scored on the SWLS, UWES-9, and JSS-18 instruments. The mean scores on the SWLS of 28 and 29 indicate that the participants are satisfied with their life (Diener, 1993). The scores for the UWES-9 indicated a very high level of work engagement, the mean for all participants was a 5.85, well above the 5.51 score that is 95<sup>th</sup> percentile norm score (Schaufeli and Bakker, 1994). Likewise, the JSS-18 score of 75 indicates

that participants are satisfied with their jobs (Spector, 1994). This research paints of picture of a very successful group of people who are doing very well. They tend to be satisfied with their lives both personally and professionally and are very engaged with their careers. These results speak to the benefits of collegiate athletic participation and mirror the results of Weight's (2018) study comparing former student athletes to their classmates who did not participate in collegiate sport.

**Table 3**  
*Impact of Head Coach Gender*

	Male Head Coach		Female Head Coach		<i>Mean Difference</i>	<i>t</i>	<i>p</i>
	Mean 1	<i>SD 1</i>	<i>Mean2</i>	<i>SD2</i>			
Annual Salary	\$93,551	\$74,052	\$96,556	\$82,435	\$3,005	-0.256	0.8
Donated to Athletic Department	1.43	0.5	1.49	0.5	-0.05	-0.823	0.411
SWLS Satisfaction With Life Scale	28.08	5.25	29.14	4.25	-1.06	-1.754	0.081
UWES-9 Work Engagement Score	5.81	1.19	5.89	0.97	-0.08	-0.453	0.651
JSS-18 Job Satisfaction Scale	74.27	14.36	76.83	13.25	-2.56	-1.212	0.227

*Note:* Salary is for FTEs

### Qualitative analysis

While the quantitative analysis did not show any measurable differences in career and life outcome based on the head coaches gender, a statistically significant difference is observed in the qualitative data in both the reported level and type of impact of the head coach. An analysis of the open-ended question revealed similar overall levels of positive and negative impacts, but significant variation within those categories. Male head coaches were significantly more likely to have a moderate positive impact on their athletes than female head coaches. Female coaches who

have a positive impact are far more likely to have that level of impact coded as “Large” while male head coaches with a positive impact had a lower percentage describing the impact as “Large” and higher percentage describing it as “Moderate”. Looking at the negative impacts, women who had female coaches had an almost even split between “Moderate Negative” and “Large Negative” impacts while women with male head coach reporting a negative impact were twice as likely to describe the impact as “Large Negative” as those describing it as “Moderate Negative”.

These results support what we would expect from Bandura’s Social Cognitive Theory. The higher overall level of impact for female coaches supports the hypothesis that female coaches are more effective models for female student athletes (Bandura, 1995). The difference in level of impact found in this research supports existing research into mentoring relationships that found women with female mentors believe having a female mentor is important and has an impact on the effectiveness of the relationship but was unable to quantify the benefits of having a female mentor (Dunbar & Kinnersley, 2011; Lowe, 2003; Wolverton, 2002).

The type of impact that the coach had was also different based on the gender of the coach. Relative to male coaches, female coaches were reported significantly more likely increased female athletes’ self-efficacy. Athletes often reported that their coach increased their resilience “She made me a strong and resilient person who knows how to push myself and work hard” and “She helped instill in me a sense of passion and drive in everything I do. She also helped me develop strong confidence and the ability to overcome difficult situations.” Others credited the increased self-efficacy instilled by their college coach with long term positive impacts on their careers. “She made me tougher, more tenacious, more competitive, more able to cope with negative feedback, more capable at self-reflection, more likely to go for goals. She

made me a better rower too, which led to international success. That in turn has a positive reflection on my medical career due to the persistence, gumption, and high level of execution associated with it.”

Female coaches were more likely to be described as having an inspirational impact on their athlete’s careers than male head coaches. These inspirational impacts often referenced the value of having a strong model of female leadership: “[My coach] made a lasting impression as a strong female leader and instilled an athletic drive to facets of life outside of my sport which I draw on in my career” and “My coach taught me how to lead and be a leader! I gain strength beyond our strength training. I developed a mental toughness that has helped me not only in my job, but my everyday life!” Others spoke of being inspired to go into coaching: “She inspired me to become a coach and educator” and “She impacted my career 100%. I always thought I wanted to be a teacher and high school coach but because of her I went in to college coaching. We talk all the time despite being in the same conference.” The inspirational aspect of having a female head coach is again what we would expect from Bandura’s Social Cognitive Theory and supports Everhart & Chelladurai’s (1998) observation that women who had female coaches were more likely to consider a career in coaching.

The type of impact most likely to be reported for male coaches was impart positive life lessons. One participant describes their collegiate head coach as having a “Huge impact; he taught me to work harder than the rest, not dwell too long on outcomes (be they wins or losses) and find something worth fighting for.” Another wrote “My collegiate head coach had high expectations of his rowers, and in particular members of his varsity 8. He expected us to be thoughtful/mindful in everything that we did, stroke by stroke, practice by practice, race by race, etc. He also, of course, expected that with that mindfulness and hard work, we would be

successful and win races (he was right). I think that approach to rowing has carried through in my graduate degree programs and professional experiences. I endeavor to be thoughtful and calculated in each task I complete and each decision I make, which I believe has helped me attain the degree of professional success I have had thus far. Many of his "sayings" that he would articulate during practice, such as "be thoughtful in your approach" have carried with me into adulthood and my professional career." These comments are very positive but show a distance between the coach and the athlete. The language is focused on what the coach taught, but not the characteristics that they embodied.

Only 8% of respondents reported their head coach having a negative impact on their careers. The level of reported negative impact was similar for coaches of either gender, but again the way in which male and female coaches have a negative impact appears to be different. The most common type of negative impact reported by athletes with female coaches was to limit aspirations or opportunities. One woman wrote: "She was very unsupportive of my dream to go to medical school, and frequently pushed back when my studies resulted in time conflicts. Even though I made it to medical school, I sometimes wonder if my professional development would be further along if she had been more supportive of my goals outside of athletics." Another wrote: "She discouraged me from pursuing things that would prepare me for life after rowing, as she believed it took away from the team." In both responses we see coaches prioritizing athletics over other pursuits and limiting the ability of their athletes to grow in other areas of their lives.

Male coaches were most likely to decrease the self-efficacy of their athletes. One writes, "to some degree, he may be a reason for lost confidence in myself." Some athletes were able to overcome this loss of self-efficacy and use it as motivation, "[My coaches] Inspired me to prove

them wrong by making the Olympics. It proved that I don't have to believe anyone who doubts me and has given me the confidence that I can achieve my goals.”

This differential level and type of positive and negative impact between male and female head coaches is very interesting and follows from the application of social cognitive theory (Bandura, 1995). The hypothesis that having a same gender coach makes it easier for athletes to model the coach's behavior is supported by the reported level of impact where female coaches were more likely to have a large impact and also in the type of impact where female coaches were much more likely to have an inspirational impact on their athletes.

### **Limitations**

The use of snowball sampling through social media to solicit participants is a significant limitation of this research. While this method allowed the researcher to inexpensively and easily identify former female student athletes, snowball sampling can call into question the representativeness of the sample and it is impossible to calculate a response rate. In this case, athletes who had been collegiate rowers shared the survey at a higher rate than those from other sports.

Based on the proportion of male and female head coaches, we would expect that approximately 57% of respondents would have had male head coaches and 43% female head coaches (Acosta & Carpenter, 2014). Contrary to this expectation, 47% of survey respondents reported having had a male head coach and 53% reported having a female head coach. With a more controlled sampling technique, this disparity in responses from athletes with male and female head coaches may have been a significant and intriguing result. Without the ability to

control the sample, there is no way to know if this observation is significant, or an artifact of who chose to complete and share the survey.

Another way to assess the representativeness of the sample is to compare the distribution of respondents across the sports. One would expect a broad representative sample to reflect the average number of participants in each sport at the college level. Table 6 illustrates the degree to which the sample differs from the population of female collegiate athletes.

**Table 6**  
*Sport participation by respondents' vs NCAA  
participation totals 2014-2015*

	<i>Sample</i>		<i>Population</i>	
	%	<i>n</i>	%	<i>n</i>
<b>Sport</b>				
Basketball	2%	6	9%	16,589
Cross Country	2%	4	9%	16,150
Field Hockey	12%	30	3%	5,894
Golf	0%	1	3%	5,221
Gymnastics	0%	1	1%	1,492
Ice Hockey	1%	2	1%	2,175
Lacrosse	1%	3	6%	10,994
Rifle	0%	1	0%	192
Rowing	47%	124	4%	7,466
Rugby	2%	6	0%	433
Soccer	8%	20	14%	26,995
Softball	5%	14	11%	19,628
Swimming	10%	27	7%	12,428
Tennis	2%	6	5%	8,960
Track and Field	3%	8	15%	28,797
Volleyball	2%	6	9%	17,026
Other	1%	3	3%	5,847



The sample is heavily over indexed for rowing and field hockey, slightly over indexed for swimming and under indexed for all other sports. This is a limitation to the extent that the participants in different sports differ from each other.

### **Future research**

The qualitative results indicate that more research is needed on the differences between male and female coaching styles and their impact on athletes. Questions that still need to be answered include:

- If both women and men are equally effective at generating wins and educating and developing female athletes what about male athletes? Are women as effective as men in coaching male athletes?
- What impact does it have on the labor market for female coaches if they are only eligible for women's coaching jobs and are excluded from the higher paying, more prestigious, men's coaching jobs? Could not hiring women to coach men be reducing the numbers of women in head coaching jobs across collegiate athletics?

### **Conclusion**

Where previous research examined the effectiveness of male and female coaches in their ability to produce wins and improve skills, this research is the first to examine the effectiveness of male and female coaches as educators and mentors. This research shows that the life outcomes of female athletes, as measured by income, the Satisfaction with Life Scale, the Job Satisfaction Scale and the Utrecht Work Engagement Scale, do not appear to be influenced by the gender of the head coach. While these scales did not reveal any differences between male and female coaches, the qualitative data that was collected showed a significant difference in the reported level of impact a coach had on the athlete's career. Women who had female head coaches were

much more likely to have the level of impact coded as “Large Positive” than women who had male head coaches. This suggests that female collegiate head coaches have an advantage over male coaches in their ability to connect with female athletes and impact their lives. This advantage, however, does not appear to result in measurable gains to the high levels of income, life satisfaction, job satisfaction, and career engagement found in this study.

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doi:10.1348/096317908X285633